

CLAIMS

1. A lithographic apparatus comprising:

at least one sensor arranged to measure positions of first and second features on a substrate;

an identification unit arranged to compare a relative position of the first and second features, said relative position being based on the measured positions, with at least one of a plurality of stored relative positions of first and second features, each of the plurality of stored relative positions of first and second features being associated with information characterising at least one substrate,

wherein the identification unit is arranged to indicate a correspondence between the relative position of the first and second features and one of the plurality of stored relative positions of first and second features.

2. The lithographic apparatus according to claim 1, wherein the information characterising at least one substrate indicates at least one of: a substrate identity, height information of a calibration substrate, a quantity of substrates in a set of substrates to which the substrate belongs, the date of an earlier process operation undergone by the substrate, the time of an earlier process operation undergone by the substrate, an apparatus used in an earlier operation of the lithographic process, and a patterning structure used in an earlier operation of the lithographic process.

3. The lithographic apparatus according to claim 2, wherein the identification unit is arranged to indicate a correspondence between the relative position of the first and second features and a stored relative position of first and second features which is closest to the relative position.

4. The lithographic apparatus of claim 1, wherein the relative position of the first and second features includes a first distance in a first direction and a second distance in a second direction different from the first direction, and

wherein the identification unit is arranged to compare the first distance with at least one stored distance in the first direction, the at least one stored distance in the first direction being indicative of information about a corresponding substrate, and

wherein the identification unit is arranged to compare the second distance with at least one stored distance in the second direction, the at least one stored distance in the second direction being indicative of information about the corresponding substrate.

5. The lithographic apparatus of claim 1, wherein the apparatus includes a positioning structure arranged to position the substrate based on a position of the first feature as measured by the at least one sensor.
6. The lithographic apparatus of claim 1, wherein the apparatus includes a positioning structure configured to determine a position of the substrate based on the one of the plurality of stored relative positions of first and second features.
7. The lithographic apparatus of claim 1, wherein the apparatus includes a calibration structure configured to calibrate the apparatus based on the information characterising at least one substrate associated with the one of the plurality of stored relative positions of the first and second features.
8. The lithographic apparatus of claim 1, wherein the identification unit includes an array of logic elements and a memory storing instructions executable by the array of logic elements.
9. A method of obtaining information regarding a substrate, said method comprising:
 - measuring positions of first and second features on a substrate;
 - comparing a relative position between the first and second features on the substrate, said relative position being based on the measured positions, with at least one of a plurality of stored relative positions of first and second features, each of the plurality of stored relative positions of first and second features being associated with information

characterizing at least one substrate; and

indicating a correspondence between the relative position of the first and second features and one of the plurality of stored relative positions of first and second features.

10. The method according to claim 9, wherein said indicating a correspondence includes indicating a correspondence between the relative position of the first and second features and a stored relative position of first and second features which is closest to the relative position.

11. A device manufacturing method comprising:

manufacturing a plurality of devices on a set of substrates, each substrate having a marker and a feature at a unique position relative to the marker;

for at least one of the set of substrates, measuring a position of at least one of the feature and the marker relative to the other of the feature and the marker;

comparing the measured relative position to at least one of a plurality of entries in a data set, each entry corresponding to a relative position between the marker and feature of one of the set of substrates; and

identifying the substrate by selecting an entry corresponding to the measured relative position,

wherein said manufacturing includes modifying a process operation based on the identity of the substrate.

12. A method of labelling a substrate, said method comprising:

providing the substrate with a first feature;

providing the substrate with a second feature; and

recording a correspondence between a relative position of the first and second features and information characterizing the substrate.

13. The method according to claim 12, wherein the substrate is part of a set of substrates; and

wherein the information characterizing the substrate is common to each substrate of the set of substrates.

14. The method according to claim 12, wherein the substrate is part of a set of substrates; and

wherein the information characterizing the substrate distinguishes the substrate from others in the set of substrates.

15. The method according to claim 12, wherein the substrate is part of a set of substrates; and

wherein the information indicates at least one of: the substrate identity, height information of a calibration substrate, a quantity of substrates in a set of substrates to which the substrate belongs, the date of an earlier process operation undergone by the substrate, the time of an earlier process operation undergone by the substrate, an apparatus used in an earlier operation of the lithographic process, and a patterning structure used in an earlier operation of the lithographic process.

16. A device manufacturing method comprising:

manufacturing a plurality of devices on a set of substrates, each substrate having a marker that indicates a position of the substrate and a feature at a position relative to the marker; and

for one of the set of substrates, determining a relative position of the marker and feature,

wherein said manufacturing includes selecting an aspect of a process operation on the substrate based on the determined relative position.

17. A lithographic substrate comprising:

a first feature; and

a second feature at a relative position to the first feature,

wherein the relative position indicates information that has been encoded onto the

substrate.

18. The lithographic substrate according to claim 17, wherein the information indicates at least one of: a substrate identity, height information of a calibration substrate, a quantity of substrates in a set of substrates to which the substrate belongs, the date of an earlier process operation undergone by the substrate, the time of an earlier process operation undergone by the substrate, an apparatus used in an earlier operation of the lithographic process, and a patterning structure used in an earlier operation of the lithographic process.
19. The lithographic substrate according to claim 17, wherein the first feature is created on the substrate at a first time, and
wherein the second feature is created on the substrate at a second time separate from the first time.
20. The lithographic substrate according to claim 17, wherein the first feature is imaged onto the substrate by an exposure at a first time, and
wherein the second feature is imaged onto the substrate by an exposure at a second time separated from the first time by a period of non-exposure.